

REMARKS

In paragraph 3 of the Office Action, the Examiner indicated that the reviewed claims included amended claims 1, 21, and 31, and that claims 1-17, 19, and 21-30 will be examined. Based upon the statement, Applicant believes that the prior amendment most recently filed on August 18, 2003, was entered by the Examiner and was the basis of the prior Office Action. Accordingly, the claims set forth below reflect this understanding.

By way of the above amendment to the specification, the Applicant has updated the status of the prior U.S. application 09/432,671 to indicate the application is now abandoned.

With respect to the Examiner's statement with regard to the claim of priority, Applicant notes that the signed Declaration submitted by the inventors lists the parent U.S. application and claims priority thereto.

Claims 1-17 and 19 are rejected under 35 USC §112 second paragraph for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. By way of the above amendment to claim 1, Applicant respectfully submits that the amended claim 1 now complies with 35 USC §112 second paragraph.

Claims 1, 4, 5, and 21 are rejected under 35 USC §102(e) as being anticipated by Orthman '749. Applicant respectfully submits that the accompanying amendment to the claims now sets forth subject matter which is not anticipated or otherwise rendered unpatentable by Orthman '749.

Applicant's independent claims 1 and 21 are directed to a method of using an automated microscope for optical scanning. As described in Applicant's specification on page 3, lines 1-2, and on page 6, line 8 through page 7, line 7, Applicant describes the desirability of using an automated optical scanning device. Such devices are capable of automatic screening of samples such as a microscope slide for which a specific biological condition such as metaphase cell state, a tumor cell, or a low frequency occurring condition. Many such items would be tedious or difficult to visualize through

manual optical searching. In contrast, the Orthman '749 reference sets forth a process in which the material of interest is manually searched and manually positioned for subsequent microdissection. Accordingly, the teachings of Orthman '749 do not anticipate Applicant's claim limitations of analyzing electronic images or identifying the objects of interest. Since the automated processing of these steps are neither taught nor suggested by the teachings of Orthman '749, Applicant respectfully submits that the Orthman '749 does not anticipate Applicant's independent claims 1 and 21.

In addition, the teachings of Orthman '749 are directed to a micro manipulation and microdissection of tissue/cells. To the extent image analysis is used at all in Orthman '749, such analysis is directed to the proper positioning of a micro manipulation tool. The positioning of the tool only occurs after the biological object of interest is manually identified and positioned under the microscope. (Orthman, Col. 6, lines 38-40). Orthman '749 fails to teach or disclose using a digital image analysis to identify biological objects of interest nor recording the position of the identified biological objects of interest.

Applicant's claimed subject matter allows for multiple locations on a single slide to be identified with the positional information of each location recorded so that subsequent sequential processing steps can be carried out for each location without further manual control by a human operator. In this manner, multiple locations on a single slide can be sequentially processed by the positioning of a micropipette and subsequent application of reagents to each sequential location. Likewise, additional micropipette steps such as rinsing and/or applying additional reagents can also be carried out in an automated process.

In contrast, the Orthman '749 reference is limited to manually identifying and positioning the biological material of interest before any machine assisted micro manipulation dissecting steps occurs. In the process of Orthman '749, multiple tissue locations will require a manual repositioning of the slide for each location as opposed to the automated operation of Applicant's methodology as set forth in claims 1 and 21.

Since Orthman '749 does not disclose or suggest Applicant's claimed features of automatic image analysis and automatic detection of biological material of interest,

Applicant respectfully submits that Orthman '749 does not anticipate Applicant's claims 1, 4, 5, and 21.

With respect to new claim 36, Applicant notes that claim 36 sets forth the claim limitation that the micropipette is position within the turret of the microscope. This subject matter was in Applicant's original claim 3 and was not rejected on a prior art basis. Accordingly, Applicant respectfully submits that claim 36 and claims dependent thereon are now in condition for allowance.

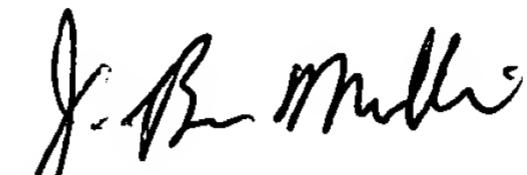
New claims 41 and 42 dependent from independent claims 1 and 21 respectively. Claims 41 and 42 specifically claim the ability to automatically identify, record, and carry out sequential steps of applying reagents to multiple locations of biological materials that may be present on a single microscope slide. The Orthman '749 reference is limited to manual positioning and identification of biological material of interest. For instance, in Orthman '749 Col. 14, line 63 through Col. 15, line 40, Orthman '749 describes several examples via enumerated steps. In all the examples, Orthman '749 steps 1-5 require that an operator manually conduct the analysis and subsequent positioning within the microscope of the biological material of interest. Following the microdissection of a single location, the manual steps need to be repeated in order to locate an additional area for microdissection. Applicant's claimed invention as set forth in claims 41 and 42 allow for multiple processing steps to be carried out without human manipulation required in order to analyze images and to subsequently identify the objects of interest.

Applicant notes that claims 3 and 7-20 were not rejected on any prior art grounds. Accordingly, Applicant respectfully submits that the subject matter in these dependent claims is allowable subject matter and requests an indication of such from the Examiner.

Inasmuch as all outstanding issues raised by the Examiner have been addressed, it is respectfully submitted that the present application is in condition for allowance, and action to such effect is earnestly solicited. The Examiner is encouraged to telephone the undersigned at his/her convenience should only minor issues remain after consideration of the present Amendment, to permit early resolution of same.

Please charge any additional fees required by this Amendment to Deposit
Account No. 50-2802.

Respectfully submitted,
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